

**STATEMENT OF WORK**  
**Digital Drafting Services Support**  
**For**  
**Visual Flight Rule (VFR) Aeronautical Charts**

## **1.0. INTRODUCTION**

The mission of the Federal Aviation Administration (FAA), Aviation System Standards (AJW-3), Visual Charts & Airport Mapping (VCAM) is to provide charting support to the FAA's National Airspace System (NAS). This charting support provides the basis for civilian and military navigation in the conterminous United States, Alaska, Hawaii, Guam, and the Caribbean-Gulf of Mexico areas. The charts produced by NACG are significant elements in maintaining safety for the NAS. The digital drafting support of these charts must be very accurate and must be accomplished within a specific time frame to meet critical chart publication dates.

**Failure to meet rigid effective dates for all of VCAM publications could jeopardize the safety, not only of aircraft, but could be the primary factor in loss of life. These publications are considered critical to air navigation and must be in the hands of their user(s) by the effective dates.**

## **2.0. SCOPE OF WORK**

Requirements for General Digital Drafting Support - The contractor shall provide in-house digital drafting for the preparation of Microstation .dgn files from compilation instructions and manuscripts for the charts listed in Section 4.0(A); perform digital drafting using Microstation J, V8xm or 8i software; load, update and maintain data files; set up data files; analyze and modify data files from annotated chart standards; extract and convert data and data files; receive, analyze and process electronic files including email files in native format as well as digital image files; Requirements for chart revisions are cyclic per year. Initially, approximately **175** charts are estimated annually. The individual types and associated quantity are defined in the contract per line item. It is mandatory that the Contractor complies with the chart specifications listed in Section 19.0 and the following general instructions:

Instructions concerning chart revisions will be indicated, by the government, on the compilation manuscript by way of drawn "leaders". The leaders describe the required change and designate the location where the revision is to be made. Compilation manuscripts for annotated charts and supplemental materials and instructions must not be changed, marked, or mutilated. Compilation instructions on revision correction copies (drafting standards) must be initialed unobtrusively to identify completion of work. Under **no** circumstances will changes be made to the furnished documents other than those clearly contained in the instructions. If the Contractor requires clarification of any instruction, the Contractor shall contact the COTR or the VCAM Representative

- A. Data (i.e., figures, type, symbols, lines, etc.) that appear on the manuscript must remain in the same relative position when changes are being made. The data feature being changed will be aligned over image.
- B. An estimate for magnitude of revisions is displayed in Section 16.0. That estimate is based on record of past revision levels and is offered for informational purposes only and not as a provision of exact requirement or obligation.

## **3.0. LABOR CATEGORIES AND SKILL SETS**

The Contractor must maintain a work force capable of achieving the quality level of digital drafting support as specified by VCAM (Experienced in using Microstation J, V8xm and 8i software). Key supervisory and production supervisory personnel must possess a thorough understanding of the terminology and communication methods (compilation instructions) used by VCAM compilers and reviewers in order to ensure that chart changes and corrections are correctly executed.

## **4.0. TASKS**

The contractor shall furnish the necessary personnel to provide general digital drafting support for the

preparation of Microstation .dgn files from compilation instructions and manuscripts for the following:

- A. Visual Flight Rules (VFR) Aeronautical Charts--Visual Charts & Airport Mapping (VCAM) Team:
  - U.S. Sectional Aeronautical Charts
  - Alaska Sectional Aeronautical Charts
  - World Aeronautical Charts
  - VFR Helicopter Route Charts
  - U.S. Gulf Coast Chart
  - Terminal Area Charts
  - VFR Flyway Planning Charts

Examples of each type chart are listed in Section 16.0. Attachments 2, 3, and 4 are examples of these charts. Each chart has a critical delivery schedule which the contractor must meet. See section 18.0 for delivery schedules. All material generated under this contract shall remain the property of the Government. Upon completion of the contract, the Contractor shall return all materials furnished by the Government and all material generated under this contract, including completed work and work in progress to VCAM.

#### **4.1. TASK 1**

The contractor shall be responsible for all work and must correct all errors, including those found by the Government. Editing and corrections shall not constitute grounds for altering delivery schedules.

#### **4.2. TASK 2**

The Contractor shall use a systematic method of quality assurance. Each time the Government submits original and/or updates to existing jobs the contractor must use this method of quality assurance. The Contractor's quality assurance method and procedures must be available for inspection by the Government upon request.

#### **5.0. DELIVERABLES**

The Contractor shall submit a Monthly Status Report (MSR) to the COTR and Contracting Officer electronically and in hardcopy no later than 5 business days after the prior month.

Deliverables shall be delivered to the COTR as required. Documents/reports shall be made available five business days prior to their scheduled date of completion for Government review and acceptance. Deliverables shall conform to established FAA guidelines and standards and accepted industry standards. The COTR and FAA Task Manager shall have ten business days to inspect the work and either report deficiencies or accept the deliverable as meeting all requirements. The Contractor shall correct deficiencies that are not a result of a change in user requirements or specifications and redeliver the document(s) to the Government within ten days of notification by the Government that deficiencies were found.

#### **6.0. KEY PERSONNEL AND QUALIFICATION REQUIREMENTS**

Key Personnel: The Key Personnel under this contract shall be one Supervisor and as many personnel experienced in using Microstation J. (as stated below) to meet production schedule that is stated in section 17.0. No diversion in key personnel shall be made by the Contractor without the written consent of the CO

The positions and the minimum qualifications considered necessary for performance of the work are listed below:

##### Supervision

The Contractor must maintain an established and continuous digital drafting services support capability and an organization for technical, administrative, and financial control.

##### Personnel Qualifications

The Contractor must maintain a work force capable of achieving the quality level of digital drafting support as specified by VCAM (Experienced in using Microstation J, V8xm and 8i software). Key supervisory and production supervisory personnel must possess a thorough understanding of the terminology and communication methods (compilation instructions) used by VCAM compilers and reviewers in order to ensure that chart changes and corrections are correctly executed.

## **7.0. KEY PERSONNEL LINES OF COMMUNICATION**

The Contractor, primarily through their assigned Program/Project Manager for each individual Task Order, shall communicate only through the Government's Contracting Officer and/or the Contracting Officer's Technical Representative (COTR) regarding all tasks, unless otherwise specifically approved in writing by the Contracting Officer to named Government individuals, such as a COTR.

## **8.0. GOVERNMENT FURNISHED FACILITIES**

The Government will supply adequate office space, drafting tables, hardware and software, with access to telephones, standard office supplies and equipment needed to complete assigned digital drafting work as described.

## **9.0. HOURS OF PERFORMANCE**

OFFICE HOURS -- Contractor personnel will be granted access to the space, supplies and equipment identified in this SOW weekdays, Monday through Friday, except for Government-observed holidays or other official leave days (e.g., due to inclement weather, Presidential inaugurations, etc.) FAA office hours are 6:30am to 6:00pm M-F. The Normal work day is 8 hours, plus ½ hour for lunch.

## **10.0. OBSERVANCE OF LEGAL HOLIDAYS AND FACILITY CLOSURES:**

The Contractor shall normally not be required or allowed to work when their assigned facility is on holiday or closed. During such periods, the Contractor will not be compensated for labor hours without: 1) advanced direction by the CO or COTR or, 2) the work being a response to a Government emergency. The following is a list of US Federal holidays and reasons for facility closures:

New Year's Day	Labor Day
Martin Luther King, Jr.'s Birthday	Columbus Day
Inauguration Day	Veterans Day
Washington's Birthday	Thanksgiving Day
Memorial Day	Christmas Day
Independence Day	

Any other day designated by Federal statute, Executive Order, or Presidential proclamation. Adverse weather conditions or national emergencies may require the facilities to close. When any such day falls on Saturday, the preceding Friday is observed and when any such day fall on Sunday, the following Monday is observed.

## **11.0. QUALITY CONTROL PLAN**

The contractor shall be solely responsible for the quality products and services provided. The contractor shall establish and maintain a quality control program for the furnishing of supplies and services. This program shall include a controlled plan of events integrating all necessary procedures, controls, inspections, and tests required to substantiate quality of service and product as stated in the contractor's current CO approved Quality Assurance Plan for the existing contract. The contractor shall submit their Quality Assurance Plan for this requirement to the CO for approval within 30 days after contract award.

## **12.0. OVER-AND-ABOVE (O&A)**

The contractor shall provide O&A actions on an as ordered basis for tasks requested by the COTR beyond the stated requirements for this Contract. O&A actions shall be ordered IAW Section H, paragraph entitled "Over and Above

Actions". The contractor shall have the capability to dispatch additional personnel in these unique situations where they are needed to meet the FAA production schedules.

NOTE: There is a possibility that sometime during the term of this contract, the Contractor will be required to revise and maintain the Base (topographic data) datasets using IRAS-B raster to vector software. In addition, the Contractor may be asked to do digital drafting work on digital airport sketches. If this occurs, the government will give the contractor a modification to allow for additional expense and start up time, and will supply in-house government training.

### **13.0 PERIOD OF PERFORMANCE**

The effective period of this contract is for the base year, and if extended by exercise of option, four (4) one-year option periods.

### **14.0. PLACE OF PERFORMANCE**

The Services required hereunder shall be performed at the following address..  
1305 East West Highway  
SSMC-4  
Silver Spring, Maryland 20910

### **15.0 SECURITY**

The Government and Contractors will abide by appropriate security regulations. There are no known requirements for classified material at this time.

In compliance with instructions contained in Homeland Security Presidential Directive 12 (HSPD-12), the contractor shall comply with Department of Commerce Personal Identity Verification (PIV) procedures when the contractor requires physical access to MCD facilities and/or access to controlled information systems. Completion of a National Agency Check with Inquiries (NACI) with a favorable suitability determination, and completion of two security training modules are required for access to all MCD facilities.

MCD retains the right to require removal of contractor personnel, regardless of prior clearance or adjudication status, whose actions, while assigned to this contract, conflict with the interests of the Government.

The Contractor is required to meet the DOC IT Security Program Policy & Minimum Implementation Standards ([http://ocio.os.doc.gov/ITPolicyandPrograms/Policy\\_Standards/DEV01\\_002681](http://ocio.os.doc.gov/ITPolicyandPrograms/Policy_Standards/DEV01_002681)).

The Contractor must consider IT Security controls throughout the lifecycle of this contract as outlined in NIST Special Publication 800-64 (<http://csrc.nist.gov/publications/nistpubs/800-64/NIST-SP800-64.pdf>).

### **16.0 LIST OF AERONAUTICAL CHARTS AND ASSOCIATED PLATES**

Examples of the VFR charts listed below are available for inspection at the VCAM Office located at SSMC-4, 1305 East-West Highway, Silver Spring, Maryland.

The charts in the following subsections use, as a primary document (standard), the latest revision of the appropriate published chart. Below is a list of the possible layers or levels, by chart type, utilized for the drafting support.

#### **A. VISUAL CHART BRANCH - ROOM 3409**

##### **SECTIONAL, TAC, FLYWAY AND GULF COAST CHARTS**

- Solid Blue
- Blue Screen
- Solid Magenta
- Magenta Screen
- Solid black

- Black Screen
- Projection

#### WORLD AERONAUTICAL CHARTS

- Solid Blue
- Blue Screen
- Solid Magenta
- Magenta Screen
- Projection

#### HELICOPTER ROUTE CHARTS

- Solid Black
- Black Screen
- Solid Brown
- Brown Screen
- Solid Blue
- Blue Screen
- Projection

### 17.0. ESTIMATED NUMBER OF CHART CHANGES

The following is an estimate of the average number of changes called for per chart , per revision cycle. The revision cycle is defined as the time required for an existing chart to be updated, printed and distributed. The Government is in no way restricted to the estimated number of changes per chart.

#### A. VFR CHARTS (revision cycle ranges from 6 months to 2 years)

Alaska Sectional Aeronautical	200
U.S. Sectional Aeronautical	300
World Aeronautical (including Mexico)	650
U.S. Gulf Coast	500
Helicopter Route (no set revision cycle)	300
Terminal Area Charts (TAC)	60
Flyway Charts	20

### 18.0. REQUIRED PICKUP AND DELIVERY SCHEDULE

Below is an example of the delivery schedule required under this SOW. The delivery schedule will be set upon awarding of the contract.

**NOTE:** The pick-up and delivery schedule will be based on an in-house movement of the products.

#### VISUAL CHARTS&AND AIRPORT MAPPING PICKUP/DELIVERY SCHEDULE

Pickup and Delivery 10:30 a.m.

SSMC-4, Station 3422

#### Sectional, TAC, Flyway and Helicopter Route Charts

<u>Chart Eff Date</u>	<u>First Shipment</u>		<u>Update Shipment</u>	
	<u>Thursday(77)</u> <u>Pickup</u>	<u>Friday(62)</u> <u>Delivery</u>	<u>Tuesday(51)</u> <u>Pickup</u>	<u>Monday(45)</u> <u>Delivery</u>
07/30/09	05/14/09	05/29/09	06/09/09	06/15/09
08/27/09	06/11/09	06/26/09	07/07/09	07/13/09
09/24/09	07/09/09	07/24/09	08/04/09	08/10/09
10/22/09	08/06/09	08/21/09	09/01/09	09/08/09
11/19/09	09/03/09	09/18/09	09/29/09	10/05/09

12/17/09	10/01/09	10/16/09	10/27/09	11/02/09
01/14/10	10/29/09	11/13/09	11/24/09	11/30/09
02/11/10	11/25/09*	12/11/09	12/22/09	12/28/09
03/11/10	12/23/09	01/08/10	01/19/10	01/25/10
04/08/10	01/22/10	02/05/10	02/16/10	02/22/10
05/06/10	02/18/10	03/05/10	03/16/10	03/22/10
06/03/10	03/18/10	04/02/10	04/13/10	04/19/10
07/01/10	04/15/10	04/30/10	05/11/10	05/17/10

#### World Aeronautical Charts (WACs) and U.S. Gulf Coast Chart

First Shipment	Update Shipment
Friday(118)    Thursday(77)	Tuesday(58)    Monday(45)

### **19.0. LIST OF CHART SPECIFICATIONS**

The Government reserves the right to revise the references/specifications provided below. All references may be inspected at the Silver Spring Metro Complex (see 4.0. for address).

- A. IACC-2; United States Government Specifications, Sectional Aeronautical/Tactical Pilotage/VFR Terminal Area Charts, on- line Fifth Edition, February 2005, (no hard copies available).
- B. IACC- 2A; United States Government Specifications, VFR Flyway Planning Chart, second edition, dated September 1993.
- C. IACC-3; United States Government Specifications, World Aeronautical Charts, Operational Navigational Charts, on- line Third Edition, December 2005, (no hard copies available).
- D. IACC-15; United States Government Specifications for Helicopter Route Charts, Second Edition, dated September 1993, with amendments through change #3, dated December 1998.
- E. U.S. Department of Commerce NOAA/NOS Type Sample Catalog for Maps and Charts, dated 1993.

### **20.0. DEFINITIONS**

All definitions in this PWS will be in accordance with those listed in the "Aeronautical Chart User's Guide", 8<sup>th</sup> Edition, January 2008. This document is available for inspection at the above-mentioned address, on the FAA Aeronautical Charts website at [www.naco.faa.gov](http://www.naco.faa.gov), or by purchase from the FAA Distribution Division by calling (800) 638-8972.